

ABSTRACT

A material for shadow mask excelling in tensile strength and magnetic properties; a process for producing the same; a shadow mask from the shadow mask material; and a picture tube including the shadow mask. A billet comprising C: ≤ 0.004 wt.%, Si: ≤ 0.03 wt.%, Mn: 0.1 to 0.5 wt.%, P: ≤ 0.02 wt.%, S: ≤ 0.02 wt.%, Al: 0.01 to 0.07 wt.%, N: ≤ 0.0040 wt.%, B: ≤ 0.01 wt.%, Nb: ≤ 0.1 wt.% and Ti: 0.0001 to 0.1 wt.% with the remainder composed of Fe and unavoidable impurities is subjected to hot rolling, pickling and cold rolling, further to continuous annealing or box annealing so as to regulate the content of residual C to 0.003 wt.% or less, and still further to secondary cold rolling at a rolling rate of 20 to 92%. Thus, a material for shadow mask is obtained.